



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,861	09/24/2004	Satoshi Kobayashi	Q83700	8702
23373	7590	10/22/2007		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
			EXAMINER YAMNITZKY, MARIE ROSE	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 10/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/508,861	Applicant(s) KOBAYASHI ET AL.	
	Examiner Marie R. Yamnitzky	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 10-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>24 Sep 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's election without traverse in the reply filed on August 24, 2007 is acknowledged. Applicant elects species (A)(iv), a non-polymeric metal complex represented by formula (3) wherein L^1 is a ligand represented by formula (5) wherein D is a divalent group derived from a conjugate system. Claims 1, 2 and 4-9 read on the elected species.

Applicant selects Complex B, as represented by the formula shown on page 81 of the specification, as the ultimate species.

Claims 3 and 10-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 24, 2007.

2. The prior art does not disclose or suggest the ultimate species selected by applicant (Complex B). More broadly, the only prior art found with respect to applicant's elected species (A)(iv) is prior art that is available based on a date that is between present applicant's foreign priority date and the PCT filing date. Since rejections based on this prior art may be overcome by perfecting the claim for foreign priority, the examiner has extended the search beyond the elected species. However, this action does not represent an examination on the merits of all species within the scope of the rejected claims.

3. Claims 1, 2 and 4-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations of claim 1 are not clear. The language in the first three lines of claim 1 implies that each of formula (1) and formula (2) represents a metal complex, but neither formula defines a metal complex.

The limitations imposed by the requirement for “a monovalent group having a metal complex structure” as recited in the first two lines of claim 1 are also not clear.

Claim 2 and claims dependent therefrom are incomplete because claim 2 recites “A, R¹ to R³, a, and b are the same as those of the above formula (1)” and “D, R⁴, R⁵, c, and d are the same as those of the above formula (2)”, but formula (1), formula (2) and the variables therein are not defined in claim 2, which is an independent claim.

Claim 7 is further incomplete in reciting “the above formula (1) or formula (2)” in defining R⁶ to R¹³ and R¹⁴ to R¹⁹. Formula (1) and formula (2) are not shown/defined in claim 7, or in independent claim 2, from which claim 7 depends.

4. For purposes of comparing to the prior art, claim 1 is interpreted as encompassing any compound, polymeric or non-polymeric, that comprises a metal complex having a group represented by formula (1) or formula (2) directly or indirectly attached to the metal complex.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Robinson et al. in *Chem. Commun.* 2000, pp. 1645-1646.

The europium complex of the formula shown in Scheme 1 on page 1645 is a metal complex represented by formula (3) as defined in present claim 2 wherein L^1 is a ligand represented by present formula (4) wherein Ar^1 represents a residue of a ligand which bonds to M^1 by oxygen atoms, and A is a single bond. This prior art complex meets the limitations of a complex as claimed in present claims 1, 2 and 8, and is disclosed for use in an organic electroluminescent device of the structure set forth in present claim 9.

The devices described in the paragraph bridging pages 1645 and 1646 and in the second full paragraph on page 1646 meet the limitations of the device of present claim 9.

7. Claims 1, 2 and 5-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamatani et al. (US 6,953,628 B2).

The 102(e) date for this reference is February 12, 2002.

Kamatani et al. provide two specific examples of iridium complexes represented by formula (3) as defined in present claim 2 wherein L^1 is a ligand represented by present formula (5) wherein Ar^2 is a bidentate ligand represented by formula (6) as defined in present claim 7 and D is a single bond. See Nos. 36 and 38 as defined in Table 1-1 (columns 15-16) of the patent,

and see the first two formulae in claim 1 of the patent. These two prior art complexes meet the limitations of a complex as claimed in present claims 1, 2 and 5-8, and are disclosed for use in an organic electroluminescent device of the structure set forth in present claim 9.

The device as claimed in patent claim 1 wherein the second organic compound is a compound represented by either of the first two formulae in patent claim 1 meets the limitations of the device of present claim 9.

8. Claims 1, 2 and 4-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Lo et al. (US 2005/0116622 A1).

The 102(e) date for this reference is March 18, 2003.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Lo et al. provide specific examples of iridium complexes represented by formula (3) as defined in present claim 2 wherein L^1 is a ligand represented by present formula (5) wherein Ar^2 is a bidentate ligand represented by formula (6) as defined in present claim 7 and D is a single bond or a divalent group derived from conjugate system. See formula 5 in Figure 1, formula 7 in Figure 4, formula 25 in Figure 5, and Examples 11, 12 and 15-17 (pages 9-11). The complexes of Examples 11 and 15 meet the limitations of a complex as claimed in present claims 1, 2 and 5-8 wherein D is a single bond. The complex of Example 12 meets the limitations of a complex as claimed in present claims 1, 2 and 4-8 wherein D is a divalent group derived from conjugate

system. These complexes are disclosed for use in an organic electroluminescent device of the structure set forth in present claim 9.

The devices of Lo's Example 17 meet the limitations of the device of present claim 9.

9. Miscellaneous:

Claims 1, 2 and 7 are not in the form of a single sentence. These claims must be rewritten in the form of a single sentence.

10. The information disclosure statement filed September 24, 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered, with the exception of the references listed on the PTO-892 that accompanies this Office action. (US 2004/0247934 A1 is the US equivalent of WO 2003/001616; US 7,094,897 B2 is the US equivalent of WO 02/081488.)

11. Any inquiry concerning this communication should be directed to Marie R. Yamnitzky at telephone number (571) 272-1531. The examiner works a flexible schedule but can generally be reached at this number from 7:00 a.m. to 3:30 p.m. Monday-Friday.

The current fax number for all official faxes is (571) 273-8300. (Unofficial faxes to be sent directly to examiner Yamnitzky can be sent to (571) 273-1531.)

MRY
October 15, 2007

Marie R. Yamnitzky

MARIE YAMNITZKY
PRIMARY EXAMINER

1794